Manitoba Agriculture

Guidelines For Estimating
HONEY PRODUCTION COSTS

Information Update

DATE: February, 1992

This guide is designed to provide planning information and a format for calculating cost of honey production for a 1,000-colony beekeeping enterprise.

It incorporates indoor wintering into its management practice and does not require package bees for annual replacement stock.

When interpreting these costs for an individual situation, adjustments may be required due to differences in management practices and facilities. Each assumption must be examined and adjusted where necessary.

This budget does not include costs beyond the production and extraction of honey. Transportation costs of honey to a wholesaler or retailer are not included in the budget.

Wax and bee sales were not taken into consideration in calculating breakeven costs.

The production costs included in this enterprise budget are **not** intended as a cost study of the beekeeping industry in Manitoba.

Mention of a proprietary product does not constitute an endorsement.

MG-15396

HONEY PRODUCTION COSTS

A. OPERATING COSTS	$/Colony	Cost/lb	Your Farm
1. Feed Costs:			
1.01 Sugar Syrup	$ 18.00	$0.1000	
1.02 Pollen Supplement	0.27	0.0015	
Total Feed Cost	$ 18.27	0.1015	
2. Other Operating Costs:			
2.01 Vet. Medicine & Supplies	$ 1.34	$ 0.0074	
2.02 Stock Replacement	2.44	0.0136	
2.03 Fuel	3.00	0.0167	
2.04 Machinery, Mtce. & Supplies	2.20	0.0122	
2.05 Building Mtce. & Repairs	3.60	0.0200	
2.06 Utilities	3.00	0.0167	
2.07 Barrels	4.35	0.0242	
2.08 Bldg. Vehicle & Liability Ins.	2.62	0.0146	
2.09 National Tripartite Stabilization	2.70	0.0150	
2.10 Small Tools, Equip. & Supplies	0.25	0.0014	
2.11 Memberships & Associations	0.20	0.0011	
2.12 Miscellaneous Costs	2.00	0.0111	
Subtotal Operating Costs	45.97	0.2554	
2.13 Operating Interest	2.53	0.0140	
TOTAL OPERATING COSTS	**$ 48.50**	**$0.2694**	
B. FIXED COSTS			
3. Depreciation			
3.01 Buildings	$ 3.66	$0.0203	
3.02 Machinery & Equipment	4.52	0.0251	
3.03 Hives	2.25	0.0125	
4. Investment			
4.01 Buildings	4.46	0.0248	
4.02 Machinery & Equipment	3.46	0.0192	
4.03 Hives	2.20	0.0122	
4.04 Bees	4.00	0.0222	
TOTAL FIXED COSTS	**$ 24.55**	**$0.1364**	
TOTAL OPERATING & FIXED COSTS	**$ 73.05**	**$0.4058**	
5. Labour	$ 24.00	$0.1333	
TOTAL COST OF PRODUCTION	**$ 97.05**	**$0.5392**	

TOTAL BREAKEVEN PRICE	($/lb of honey)	
Operating Cost	0.27	
Operating & Fixed Cost	0.41	
Operating, Fixed Cost & Labour	0.54	

Breakeven Price/lb. = Production Cost ÷ lbs. of Honey/Colony

ASSUMPTIONS
HONEY PRODUCTION COSTS

1. This budget outlines the cost of honey production.
2. Wax and bee sales were not considered.
3. While honey is normally marketed wholesale, this budget does not include marketing costs

OPERATION PROFILE	TOTAL
Number of Hives	1,000
Market Value per Hive	$50.00
Average Number of lbs. of Honey/Colony	180 lbs
Value of Bees per Colony	$50.00

FEED COSTS	TOTAL
SUGAR SYRUP:	
Number of kg of sugar per sugar syrup feeding	10.34 kg
Feedings (on a pail per colony basis):	
Number of Spring Feedings	1
Number of Fall Feedings	2
POLLEN SUBSTITUTE:	
Amount of sugar/colony (g)	150 g
Cost per kg of Sugar	$0.58/kg
Amount of soybean flour/colony (g)	150 g
Cost per kg of soybean flour	$1.19/kg

FOOTNOTE:

Feeding implies the number of pails per colony.
1 kilogram (kg) = 2.2046 pounds (lbs.)
1 kilogram (kg) = 1000 grams (g)
1 tonne (t) = 1,000 kg

CAPITAL COSTS:

	Useful Life (Years)	Value	Salvage Value %
Buildings:			
Wintering Complex - includes heating & ventilation equipment	25	$ 50,000	10
Honey House, Warehouse & Vehicle Storage - includes heating, ventilation equipment, plumbing & loading dock	25	$ 50,000	10
Well	25	$ 1,500	0
Total Building Value		**$101,500**	
Machinery & Equipment:			
1/2 Ton Truck	10	$ 15,000	20
5 Ton Truck - includes trailer	10	$ 18,000	20
Rough Terrain Forklift	15	$ 12,500	15
Extracting & Other Equipment	15	$ 25,000	30
Total Machinery & Equipment		**$ 70,500**	
Total Value of Hives	20	$ 50,000	10
Total Spring Value of Bees		$ 50,000	
Total Building, Machinery & Equipment, Hives & Bee Value		**$272,000**	

WORKSHEET
HONEY PRODUCTION COSTS

A. OPERATING COSTS

Your Farm

1. Feed Costs:

1.01 Sugar Syrup Mixture

Spring Feed Cost:

	10.34	kg sugar/feeding	
x	$ 0.58	/kg sugar	
=	$ 6.00	Sugar cost/feeding	
x	1	Number of Pails/Colony	
=	$ 6.00	Spring Feed Cost/Colony	

Fall Feed Cost:

	10.34	kg sugar/feeding	
x	$ 0.58	/kg sugar	
=	$ 6.00	Sugar cost/feeding	
x	2	Number of Pails/Colony	
=	$ 12.00	Fall Feed Cost/Colony	

TOTAL SUGAR COST:

	$ 6.00	Spring Feed Cost	
+	$ 12.00	Fall Feed Cost	
=	**$ 18.00**	**/Colony**	

1.02 Pollen Substitute (1 feeding)

	0.15	kg sugar	
x	$ 0.58	/kg sugar	
=	$ 0.09	Sugar Cost/Colony	
	0.15	kg soybean flour/feeding	
x	$ 1.19	/kg soybean flour	
=	$ 0.18	Soybean Flour Cost/Colony	

TOTAL POLLEN SUBSTITUTE:

	$ 0.09	Sugar Cost	
	$ 0.18	Soybean Flour Cost	
=	**$ 0.27**	**/Colony**	

2. Other Operating Costs

Your Farm

2.01 Veterinary Medicine & Supplies

TERRAMYCIN

	5	g Terramycin/treatment	
x	$ 0.01	/g of Terramycin	
=	$ 0.05	Terramycin Cost/Treatment	
	25	g icing sugar/treatment	
x	$ 0.80	kg of icing sugar	
÷	1000	grams	
=	$ 0.02	Icing Sugar Cost/Treatment	
	$ 0.07	Ingredients Cost	
x	4	Treatments/Colony	
=	$ 0.28	Terramycin Treatment/Colony	

FUMIDIL B

	20	Bottles of Fumidil B	
x	$ 53.00	/bottle	
=	$1060.00		
÷	1,000	/colonies	
=	$ 1.06	Fumidil B /Colony	

Total Veterinary Medicine & Supplies:

	$ 0.28	Terramycin Cost	
+	$ 1.06	Fumidil B Cost	
=	**$ 1.34**	**Vet. Medicine & Supplies/Colony**	

2.02 Queen Replacement

	250	Replacement Queens	
x	$ 9.75	/Queen	
÷	1,000	Colonies	
=	**$ 2.44**	**/Colony**	

2.03 Fuel (transportation of hives and hive management)

	$ 3,000	Total Cost of Fuel	
÷	1,000	Colonies	
=	**$ 3.00**	**/Colony**	

2.04 Machinery, Maintenance & Supplies

Your Farm

Vehicle Maintenance is assumed to be 5% of capital, and is charged annually.

5 Ton Truck with Trailer:

	$18,000	Capital Cost
-	$ 3,600	Salvage Value
=	$14,400	
x	0.05	
÷	1,000	Colonies
=	$ 0.72	/Colony

1/2 Ton Truck:

	$15,000	Capital Cost
-	$ 3,000	Salvage Value
=	$12,200	
x	0.05	
÷	1,000	Colonies
=	$ 0.60	/Colony

Forklift:

	$12,500	Rough Terrain Forklift
-	$ 1,875	Salvage Value
=	$10,625	
x	0.05	
÷	1,000	Colonies
=	$ 0.53	/Colony

Miscellaneous Equipment:

	$25,000	Capital Cost
-	$ 7,500	Salvage Value
=	$17,500	
x	0.02	
÷	1,000	Colonies
=	$ 0.35	/Colony

Total Machinery, Maintenance & Supplies:

	$ 0.72	5 Ton Truck with Trailer
	$ 0.60	1/2 Ton Truck
	$ 0.53	Forklift
+	$ 0.35	Miscellaneous Equipment
=	**$ 2.20**	**/Colony**

2.05 Building Maintenance & Repairs — Your Farm

Building Maintenance & Repairs are charged annually as a percentage of net capital cost at a rate of 4%.

Wintering Complex:

	$50,000	Building Value	
-	$ 5,000	Salvage Value	
=	$45,000		
x	0.04		
÷	1,000	Colonies	
=	$ 1.80	/Colony	

Honey House, Warehouse, Vehicle Storage:

	$50,000	Building Value	
-	$ 5,000	Salvage Value	
=	$45,000		
x	0.04		
÷	1,000	Colonies	
=	$ 1.80	/Colony	

Total Building Maintenance & Repairs:

	$ 1.80	Wintering Complex	
+	$ 1.80	Honey House, etc.	
=	**$ 3.60**	**/Colony**	

2.06 Utilities (Business portion only)

	$ 2,000	Hydro Cost	
+	$ 1,000	Telephone Cost	
÷	1,000	Colonies	
=	**$ 3.00**	**/Colony**	

2.07 Barrels

	180	Pounds of honey/colony (average)	
÷	620	Pounds per barrel (capacity)	
=	0.29	Barrel/colony	
x	$ 15.00	Cost/barrel	
=	**$ 4.35**	**/Colony**	

2.08 Insurance — Your Farm

	$289,000	Total Capital Invested	_____
x	0.75	Insurance Rate/$100	_____
÷	100		_____
=	$2,167.50	Total Insurance Cost	_____
÷	1,000	Colonies	_____
=	$ 2.17	Building Insurance/Colony	_____
	$ 450.00	Total Vehicle Insurance	_____
÷	1,000	Colonies	_____
=	$ 0.45	Vehicle Insurance/Colony	_____

Total Building, Vehicle & Liability Insurance:

	$ 2.17	Building Insurance/Colony	_____
+	$ 0.45	Vehicle Insurance/Colony	_____
=	**$ 2.62**	**/Colony**	_____

2.09 National Tripartite Stabilization (Premium)

	180	Pounds of Honey/Colony (average)	_____
x	$ 0.015	Stabilization Premium/Pound	_____
=	**$ 2.70**	**/Colony**	_____

2.10 Small Tools, Equipment & Supplies

	$ 250	Total Yearly Cost	_____
÷	1,000	Colonies	_____
=	**$ 0.25**	**/Colony**	_____

2.11 Memberships & Associations

	$ 200	Total Yearly Cost	_____
÷	1,000	Colonies	_____
=	**$ 0.20**	**/Colony**	_____

2.12 Miscellaneous Costs

	$ 2,000	Total Yearly Cost	_____
÷	1,000	Colonies	_____
=	**$ 2.00**	**/Colony**	_____

2.13 Operating Interest — Your Farm

	$ 45.97	Annual Operating Costs	
÷	2		
x	0.11	Operating Interest Rate (%)	
=	**$ 2.53**	**/Colony**	

B. FIXED COSTS

3. Depreciation:

3.01 Buildings:

Wintering Complex:

	$ 50,000	Original Value	
-	$ 5,000	Salvage Value	
÷	25	Years Useful Life	
÷	1,000	Colonies	
=	$ 1.80	/Colony	

Honey House, Warehouse & Vehicle Storage:

	$ 50,000	Original Value	
-	$ 5,000	Salvage Value	
÷	25	Years Useful Life	
÷	1,000	Colonies	
=	$ 1.80	/Colony	

Well:

	$ 1,500	Original Value	
-	$ 0	Salvage Value	
÷	25	Years Useful Life	
÷	1,000	Colonies	
=	$ 0.06	/Colony	

Total Building Depreciation:

	$ 1.80	Wintering Complex	
	$ 1.80	Honey House, Warehouse, Vehicle	
+	$ 0.06	Well	
=	**$ 3.66**	**/Colony**	

3.02 Machinery and Equipment — Your Farm

1/2 Ton Truck:

	$15,000	Capital Cost	
-	$ 3,000	Salvage Value	
÷	10	Years Useful Life	
÷	1,000	Colonies	
=	$ 1.20	/Colony	

5 Ton Truck

	$18,000	Original Value	
-	$ 3,600	Salvage Value	
÷	10	Years Useful Life	
÷	1,000	Colonies	
=	$ 1.44	/Colony	

Rough Terrain Forklift

	$12,500	Original Value	
-	$ 1,875	Salvage Value	
÷	15	Years Useful Life	
÷	1,000	Colonies	
=	$ 0.71	/Colony	

Extracting & Other Equipment

	$25,000	Original Value	
-	$ 7,500	Salvage Value	
÷	15	Years Useful Life	
÷	1,000	Colonies	
=	$ 1.17	/Colony	

Total Machinery and Equipment Depreciation:

	$ 1.20	1/2 Ton Truck	
	$ 1.44	5 Ton Truck	
	$ 0.71	Rough Terrain Forklift	
	$ 1.17	Extracting & Other Equipment	
=	**$ 4.52**	**/Colony**	

3.03 Hives

Your Farm

	$50,000	Original Value	
-	$ 5,000	Salvage Value	
÷	20	Years Useful Life	
÷	1,000	Colonies	
=	**$ 2.25**	**/Colony**	

4. Investment:

4.01 Buildings

	$101,500	Total Building Value	
+	$ 10,000	Salvage Value	
÷	2		
x	0.08	Investment Rate	
÷	1,000	Colonies	
=	**$ 4.46**	**/Colony**	

4.02 Machinery & Equipment

	$ 70,500	Total Mach. & Equipment Value	
+	$ 15,975	Salvage Value	
÷	2		
x	0.08	Investment Rate	
÷	1,000	Colonies	
=	**$ 3.46**	**/Colony**	

4.03 Hives

	$ 50,000	Total Hive Value	
+	$ 5,000	Salvage Value	
÷	2		
x	0.08	Investment Rate	
÷	1,000	Colonies	
=	**$ 2.20**	**/Colony**	

4.04 Bees

	$ 50.00	Bee Investment/Colony	
x	0.08	Investment Rate	
=	**$ 4.00**	**/Colony**	

5. Labour

	$ 3.00	Hours/colony	
x	$ 8.00	/hour	
=	**$ 24.00**	**/Colony**	

FOR MORE INFORMATION SEE YOUR LOCAL MANITOBA AGRICULTURE OFFICE.

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